Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-13 (canceled)

Claim 14 (currently amended): An optical sheet comprising cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet,

wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant; and convex portions having a height equal to or greater than 0.20 μm from an average central plane are further provided on the other principal face side opposite to the one principal face on which said cylindrical lens elements, wherein a density of said convex portions is equal to or higher than 70 /mm^2 but equal to or lower than 500 /mm^2.

Claim 15 (previously presented): The optical sheet according to claim 14, wherein the radius R of curvature, the conic constant K and a configuration unit width D satisfy the following numerical ranges:

$0 < R < D$

$-4 < K \leqq -1.$

Claim 16 (previously presented): The optical sheet according to claim 14, wherein the radius R of curvature and the conic constant K satisfy the following numerical ranges:

$0 < R < D/2$

$-3 < K \leqq -1.$

Claim 17 (previously presented): The optical sheet according to claim 14, wherein the radius R of curvature and the conic constant K satisfy the following numerical ranges:

$0 < R < 2D/5$

$-3 < K \leqq -1$.

Claim 18 (canceled)

Claim 19 (currently amended): The optical sheet according to claim 14, ~~further comprising convex portions having a height equal to or greater than 0.20 μm from an average central plane on a principal face side opposite to the principal face on which said cylindrical lens elements are provided,~~ wherein the average distance between said convex portions is equal to or greater than 50 μm but equal to or smaller than 120 μm.

Claim 20 (currently amended): The optical sheet according to claim 14, ~~further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided,~~ wherein said convex portions are provided such that, in a state wherein said cylindrical lens elements are not formed, a cloudiness degree of said optical sheet is equal to or lower than 60%.

Claim 21 (currently amended): The optical sheet according to claim 14, ~~further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided,~~ wherein said convex portions are provided such that, in a state wherein said cylindrical lens elements are not formed, the cloudiness degree of said optical sheet is equal to or lower than 20%.

Claim 22 (currently amended): The optical sheet according to claim 14, ~~further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided,~~ wherein the ten-point average roughness SRz of said convex portions is equal to or higher than 1 μm but equal to or lower than 15 μm.

Claim 23 (currently amended): The optical sheet according to claim 14, ~~further comprising convex portions on the principal face side opposite to the one principal face on which said cylindrical lens elements are provided,~~ wherein the height of said convex portions at which the convex portion area occupies 1% is equal to or greater than 1 μm but equal to or smaller than 7 μm.

Claim 24 (currently amended): The optical sheet according to claim 14, ~~further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided,~~ wherein

the average inclination gradient of the face on the side on which said convex portions are provided is equal to or greater than 0.25.

Claims 25-26 (canceled)

Claim 27 (new): The optical sheet according to claim 14, wherein the convex portions are provided on an other principal face side opposite to the one principal face.

Claim 28 (new): The optical sheet according to claim 14, wherein the optical sheet is molded from the transparent thermoplastic resin.

Claim 29 (new): The optical sheet according to claim 14, wherein at least one release agent is added to the thermoplastic resin in an amount equal to or greater than 0.02 wt% but equal to or less than 0.4%.

Claim 30 (new): The optical sheet according to claim 14, wherein at least one ultraviolet absorbing agent or light stabilizer is contained in the thermoplastic resin in an amount equal to or greater than 0.02% but equal to or lower than 0.4wt%.

Claim 31 (new): The optical sheet according to claim 14, wherein the optical sheet is an integrated molded article, and is formed by thermal transfer.

Claim 32 (new): An optical sheet comprising cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet,

wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions having a height equal to or greater than 0.20 μm from an average central plane on a principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein the average distance between said convex portions is equal to or greater than 50 μm but equal to or smaller than 120 μm.

Claim 33 (new): An optical sheet comprising cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet,

wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein said convex portions are provided such that, in a state wherein said cylindrical lens elements are not formed, a cloudiness degree of said optical sheet is equal to or lower than 60%.

Claim 34 (new): An optical sheet comprising cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet,

wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein said convex portions are provided such that, in a state wherein said cylindrical lens elements are not formed, the cloudiness degree of said optical sheet is equal to or lower than 20%.

Claim 35 (new): An optical sheet comprising cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet,

wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein said convex portions are provided such that, in a state wherein the ten-point average roughness SRz of said convex portions is equal to or higher than 1 μm but equal to or lower than 15 μm.

Claim 36 (new): An optical sheet comprising cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet,

wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the one principal face on which said cylindrical lens elements are provided, wherein the height of said convex portions at which the convex portion area occupies 1% is equal to or greater than 1 μm but equal to or smaller than 7 μm.

Claim 37 (new): An optical sheet comprising cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row on one of principal faces of said optical sheet,

wherein a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, and wherein a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{}(R^2 - (1 + K)X^2))$$

where R is a radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein the average inclination gradient of the face on the side on which said convex portions are provided is equal to or greater than 0.25.

Claim 38 (new): A backlight comprising:

a light source for emitting illumination light; and

an optical sheet for raising a directivity of a illumination light emitted from said light source;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{}(R^2 - (1 + K)X^2))$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions having a height equal to or greater than 0.20 μm from an average central plane and further provided on the other principal face side opposite to the one principal face on which said cylindrical lens elements, wherein a density of said convex portions is equal to or higher than 70 /mm^2 but equal to or lower than 500 /mm^2.

Claim 39 (new): A backlight comprising:

a light source for emitting illumination light; and

an optical sheet for raising a directivity of a illumination light emitted from said light source;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{}(R^2 - (1 + K)X^2))$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant; further comprising convex portions having a height equal to or greater than 0.20 μm from an average central plane on a principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein the average distance between said convex portions is equal to or greater than 50 μm but equal to or smaller than 120 μm.

Claim 40 (new): A backlight comprising:

a light source for emitting illumination light; and

an optical sheet for raising a directivity of a illumination light emitted from said light source;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant; further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein said convex portions are provided such that, in a state wherein said cylindrical lens elements are not formed, a cloudiness degree of said optical sheet is equal to or lower than 60%.

Claim 41 (new): A backlight comprising:

a light source for emitting illumination light; and

an optical sheet for raising a directivity of a illumination light emitted from said light source;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant; further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein said convex portions are provided such that, in a state wherein said cylindrical lens elements are not formed, the cloudiness degree of said optical sheet is equal to or lower than 20%.

Claim 42 (new): A backlight comprising:

a light source for emitting illumination light; and

an optical sheet for raising a directivity of a illumination light emitted from said light source;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant; further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein the ten-point average roughness SRz of said convex portions is equal to or higher than 1 μm but equal to or lower than 15 μm.

Claim 43 (new): A backlight comprising:

a light source for emitting illumination light; and

an optical sheet for raising a directivity of a illumination light emitted from said light source;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant; further comprising convex portions on the principal face side opposite to the one principal face on which said cylindrical lens elements are provided, wherein the height of said convex portions at which the convex portion area occupies 1% is equal to or greater than 1 μm but equal to or smaller than 7 μm.

Claim 44 (new): A backlight comprising:

a light source for emitting illumination light; and

an optical sheet for raising a directivity of a illumination light emitted from said light source;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$

where R is the radius of curvature of a distal end vertex, and K is a conic constant; further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein

the average inclination gradient of the face on the side on which said convex portions are provided is equal to or greater than 0.25.

Claim 45 (new): A liquid crystal display apparatus, comprising:

a light source for emitting illumination light;

an optical sheet for raising the directivity of a illumination light emitted from said backlight; and

a liquid crystal panel for displaying an image based on the illumination light emitted from said optical sheet;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$

where R is the radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions having a height equal to or greater than 0.20 μm from an average central plane are further provided on the other principal face side opposite to the one principal face on which said cylindrical lens elements, wherein a density of said convex portions is equal to or higher than 70 /mm^2 but equal to or lower than 500 /mm^2.

Claim 46 (new): A liquid crystal display apparatus, comprising:

a light source for emitting illumination light;

an optical sheet for raising the directivity of a illumination light emitted from said backlight; and

a liquid crystal panel for displaying an image based on the illumination light emitted from said optical sheet;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$

where R is the radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions having a height equal to or greater than 0.20 μm from an average central plane on a principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein the average distance between said convex portions is equal to or greater than 50 μm but equal to or smaller than 120 μm.

Claim 47 (new): A liquid crystal display apparatus, comprising:

a light source for emitting illumination light;

an optical sheet for raising the directivity of a illumination light emitted from said backlight; and

a liquid crystal panel for displaying an image based on the illumination light emitted from said optical sheet;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein said convex portions are provided such that, in a state wherein said cylindrical lens elements are not formed, a cloudiness degree of said optical sheet is equal to or lower than 60%.

Claim 48 (new): A liquid crystal display apparatus, comprising:

a light source for emitting illumination light;

an optical sheet for raising the directivity of a illumination light emitted from said backlight; and

a liquid crystal panel for displaying an image based on the illumination light emitted from said optical sheet;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein said convex portions are provided such that, in a state wherein said cylindrical lens elements are not formed, the cloudiness degree of said optical sheet is equal to or lower than 20%.

Claim 49 (new): A liquid crystal display apparatus, comprising:

a light source for emitting illumination light;

an optical sheet for raising the directivity of a illumination light emitted from said backlight; and

a liquid crystal panel for displaying an image based on the illumination light emitted from said optical sheet;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{(R^2 - (1 + K)X^2)})$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein the ten-point average roughness SRz of said convex portions is equal to or higher than 1 μm but equal to or lower than 15 μm.

Claim 50 (new): A liquid crystal display apparatus, comprising:

a light source for emitting illumination light;

an optical sheet for raising the directivity of a illumination light emitted from said backlight; and

a liquid crystal panel for displaying an image based on the illumination light emitted from said optical sheet;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{}(R^2 - (1 + K)X^2))$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the one principal face on which said cylindrical lens elements are provided, wherein the height of said convex portions at which the convex portion area occupies 1% is equal to or greater than 1 μm but equal to or smaller than 7 μm.

Claim 51 (new): A liquid crystal display apparatus, comprising:

a light source for emitting illumination light;

an optical sheet for raising the directivity of a illumination light emitted from said backlight; and

a liquid crystal panel for displaying an image based on the illumination light emitted from said optical sheet;

said optical sheet has, provided on one of principal faces thereof, cylindrical lens elements which have a hyperboloidal face or a paraboloidal face and are provided successively in a row;

where a Z axis is taken in parallel to a normal line direction to said optical sheet and an X axis is taken in a direction of the row of said cylindrical lens elements, a cross sectional shape of said cylindrical lenses satisfies the following expression:

$$Z = X^2/(R + \sqrt{}(R^2 - (1 + K)X^2))$$

where R is the radius of curvature of a distal end vertex, and K is a conic constant;

further comprising convex portions on the principal face side opposite to the principal face on which said cylindrical lens elements are provided, wherein

the average inclination gradient of the face on the side on which said convex portions are provided is equal to or greater than 0.25.